

**WEST**

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L11: Entry 10 of 61

File: EPAB

Jan 27, 1999

PUB-NO: EP000893726A1

DOCUMENT-IDENTIFIER: EP 893726 A1

TITLE: Laminated glass windscreen used simultaneously as the reflector in a head-up display

PUBN-DATE: January 27, 1999

## INVENTOR-INFORMATION:

NAME

SAUER, GERD

COUNTRY

DE

## ASSIGNEE-INFORMATION:

NAME

SAINT GOBAIN VITRAGE

COUNTRY

FR

APPL-NO: EP98401850

APPL-DATE: July 21, 1998

PRIORITY-DATA: DE19731873A (July 24, 1997)

INT-CL (IPC): G02 B 27/00; G02 B 27/01; B32 B 17/10

EUR-CL (EPC): B32B017/10; G02B027/01

## ABSTRACT:

CHG DATE=20010202 STATUS=O>&ORDF;&ORDF;&ORDF;&ORDF;The windscreen consists of two glass sheets (3,6) with an intermediate layer between which tapers in a downward direction and is made from at least two thermoplastic films. One of the films (4) has a tinted filtering strip (2) along its upper edge, while the other (5) has a wedge-shaped cross-section to provide the required angle of taper. The filtering strip has parallel faces, and the angle of taper is provided by the other film, which is shaped by extrusion or stretching. The windscreen is some 0.8 m high, with a radius of curvature of 3.30 m at the top. The plastics film layer with the tinted strip adopts a tapering cross-section when stretched for fitting.

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L28: Entry 3 of 5

File: DWPI

Mar 27, 1991

DERWENT-ACC-NO: 1991-088900

DERWENT-WEEK: 200028

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TITLE: Heated laminated safety glazing - with conductive coating between single support and plastics sheet

INVENTOR: JOURDAINE, L

PATENT-ASSIGNEE:

ASSIGNEE

SAINT-GOBAIN VITRAGE MIROIRS

SAINT-GOBAIN VITRAG

SAINT-GOBAIN VITRAGE

CODE

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PRIORITY-DATA: 1989FR-0012170 (September 18, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 419321 A	March 27, 1991		000	
JP 3042698 B2	May 15, 2000		008	B32B017/10
FR 2652037 A	March 22, 1991		000	
JP 03110147 A	May 10, 1991		000	
US 5071692 A	December 10, 1991		000	
EP 419321 B1	January 17, 1996	F	011	B32B017/10
DE 69024894 E	February 29, 1996		000	B32B017/10
ES 2084678 T3	May 16, 1996		000	B32B017/10

DESIGNATED-STATES: BE CH DE ES FR GB IT LI LU SE BE CH DE ES FR GB IT LI LU SE

CITED-DOCUMENTS: EP 241337; GB 1205271 ; US 3398040 ; US 4010304 ; US 4154638 ; US 4294881 ; WO 8801230

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 419321A	September 12, 1990	1990EP-0402504	
JP 3042698B2	September 17, 1990	1990JP-0244147	
JP 3042698B2		JP 3110147	Previous Publ.
FR 2652037A	September 18, 1989	1989FR-0012170	
JP 03110147A	September 17, 1990	1990JP-0244147	
US 5071692A	September 18, 1990	1990US-0584070	
EP 419321B1	September 12, 1990	1990EP-0402504	
DE 69024894E	September 12, 1990	1990DE-0624894	
DE 69024894E	September 12, 1990	1990EP-0402504	
DE 69024894E		EP 419321	Based on
ES 2084678T3	September 12, 1990	1990EP-0402504	
ES 2084678T3		EP 419321	Based on

INT-CL (IPC): B32B 9/00; B32B 15/04; B32B 17/10; B32B 27/06; B60J 1/00; B60J 1/20;

C03C 27/12; E06B 3/54; H05B 3/26

ABSTRACTED-PUB-NO: EP 419321A

BASIC-ABSTRACT:

In laminated glazing, formed of a laminated or monolithic glass and/or plastics support having, on one face, a coloured enamel edging and a plastics sheet comprising at least one polyurethane layer, the novelty is the provision of an electrically conductive coating and a current feed system, pref. metallic (esp. copper) foils and/or screen printed conductive (esp. silver-based strips) in the upper and lower parts of the glazing.

The conductive coating may consist of a metal (oxide) layer, esp. a doped SnO<sub>2</sub> or indium tin oxide layer, or a thin film multilayer comprising a metal (e.g. Ag) layer sandwiched between two dielectric layers. The plastics sheet pref. comprises a layer of energy absorbing thermoplastic material and a layer of thermosetting material with anti-laceration and self-healing properties. The support pref. consists of coloured glass of TSA or TSA(2+) type.

USE/ADVANTAGE - The glazing is used as heated safety glass, esp. as automobile windscreens and rear windows and as glazing for buildings. It has only one support, thus facilitating prodn. of complex bent profiles, and is mechanically strong.

ABSTRACTED-PUB-NO:

EP 419321B

EQUIVALENT-ABSTRACTS:

Laminated window formed from a monolithic or laminated support made from glass and/or a plastics material and having on one face a coloured enamel border and a plastics material sheet incorporating at least one polyurethane layer, characterised in that it also comprises an electrically conductive coating constituted by a layer of doped SnO<sub>2</sub> or indium-tin oxide or by a stack of thin layers essentially comprising a metal layer such as silver inserted between two dielectric layers, as well as current supply means.

US 5071692A

The laminated glazing comprises (a) a single plate support having a coloured enamel border on one face, (b) an electroconductive coating adhered onto the face, (c) an electric power lead-in means in electrical communication with the electroconductive coating, and (d) a plastic sheet having at least one polyurethane layer adhered onto the electroconductive coating and covering the lead means. The power lead-in means extends adjacent two opposite edges of the glazing, and is a metal foil or silk screened strips with a Ag base. The electroconductive coating is doped SnO<sub>2</sub> or ITO.

USE/ADVANTAGE - Used as windshields or rear windows of motor vehicles, or for buildings. The ITO gives a blue-green or green tint, esp. suitable for automobiles. @ (8pp) @

CHOSEN-DRAWING: Dwg.1a/5 Dwg.1/5

TITLE-TERMS: HEAT LAMINATE SAFETY GLAZE CONDUCTING COATING SINGLE SUPPORT PLASTICS SHEET

DERWENT-CLASS: A32 A94 L01 L03 P73 Q12 Q48 X22 X25

CPI-CODES: A05-G01E; A12-R04; A12-S07A; A12-T04A; L01-G04C; L01-G04D; L01-L02; L03-H05;

EPI-CODES: X22-J02A; X25-B01C1;

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0231 1294 2020 2322 2498 2499 2522 2617 2623 2629 2695 2721 2726 3267 3280 2827 3300

Multipunch Codes: 014 04- 150 231 364 366 443 471 472 473 477 502 551 556 560 562

567 57& 59& 613 615 623 627 672

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1991-037768

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